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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,390	05/03/2001	Tuomo Juvakka	11001.075	3090

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EXAMINER

HASTINGS, KAREN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09831390

Applicant(s)

Juvakka et al

Examiner

HASTINGS

Group Art Unit

1731

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 2/3/03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 6-9 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 6-9 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 12+16 (same form)
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Note: The claims filed on February 3, 2003 have been renumbered 6-9 since originally there existed claims 1-5. Please make a note of this and in subsequent amendments take into account that you will be amending claims 6-9, not claims 5-8.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claims have been extensively amended and the language now used in the claims does not appear to be explicitly described in the specification. For example only, the use of the phrase "a doctor foil" (emphasis provided) does not appear in the specification; likewise the description of the doctor foil being at "a sharp angle" and this angle "being smaller than said doctor blade contact angle" does not appear to be explicitly described in the specification. Indeed the recitation that the doctor foil contact angle is smaller than the doctor blade contact angle is not readily apparent from the Figures and appears to be new matter.

But in any event, any claim language used in these claims or in any subsequent amendments to the claims needs to have proper antecedent basis in the specification. This is best provided by having explicit wording in the specification that supports the wording now used in the claims. The specification can be amended

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to reflect what is shown in the Figures, such as that the doctor foil 12 has a trapezoidal cross-sectional shape as set forth in claim 8. However careful review of the claims, their language and that they find explicit antecedent basis in the language of the specification is needed. No new matter may be entered.

Claims 6-9 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As set out above, nowhere does the specification describe that the doctor foil 12 contact angle is ~~is~~ smaller than ~~the~~ doctor blade 13 contact angle and this is not, in the Examiner's opinion, readily apparent from the Figure. It is also unclear what is meant by "a sharp angle" as set out in new claim 6 since the specification never described the angle that the doctor foil 12 contacts the roll at. Indeed according to the Figure it appears that foil 12 is pivotally mounted at the end and could also change its contact angle.

Claims 6-9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

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The term "a sharp angle" in claim 6 is a relative term which renders the claim indefinite. The term "a sharp angle" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. As set out above, nowhere does the specification describe that the doctor/foil contact the roll at a "sharp angle" and therefore there has never been, nor is there now, any description in the specification as to what is meant by ~~the~~ a sharp angle~~the~~.

Claims 6-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over applicants' admission of prior art at page 1 of the specification (AAPA) with Kivimaa et al., and further in view of Boucher, *if necessary* further with Turtinen et al. and/or WO '279.

Applicants admit on page 1 of the specification that a suction roll doctor, now termed "doctor foil", which scrapes water off a suction roll, is known. This admission appears to be exemplified by Kivimaa et al. See the structural similarity of Kivimaa's blade to doctor blade 12 of applicants' Figures.

Applicants further admit in the third paragraph of page 1 that a double doctor has been used for similar use, that is to remove water from a suction roll. It appears that applicants are saying that this prior art double doctor did not however use a

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"doctor foil" as taught in Kivimaa et al. However it is the Examiner's position that it would have been prima facie obvious to use such a doctor foil in order to obtain the known advantageous effects of such a doctor foil as taught in Kivimaa et al. in a double doctor as admitted known for removing water from a suction roll. Kivimaa teaches the doctor blade/❖foil❖ is particularly useful for taking water off of a suction roll.

Further, to use this as the initial doctor blade in a double doctor would have been prima facie obvious to one of ordinary skill in the art since Kivimaa et al. teaches the particular advantages of the doctor foil for removing water from a suction roll.

To optimize the spacing between the two doctor blades/that is, foil and blade, would have been within the level of ordinary skill in the art in order for both blades to function effectively and efficiently. However Boucher is cited to exemplify that an angle of 15° between two doctor blades on a paper making roll is an appropriate spatial relationship. Thus to have used an angular spacing of 15° or more between the double doctor of the admitted prior art as modified to use a foil as the first doctor blade as taught to be advantageous for a suction roll by Kivimaa, would have been prima facie obvious to one of ordinary level of skill in the art in order to obtain an appropriate spacing as taught in Boucher.

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Note further that Kivimaa teaches the use of a trough K for the foil blade and therefore to have had a trough in order to collect the water would have been prima facie obvious within the ordinary skill in the art as taught to be an appropriate part of the mounting structure for a doctor foil.

Dependent claims are shown or suggested by the references. Note Turtinen et al. and WO '279 are cited if even necessary to further show the conventional use of double doctors for paper making rolls. Note particularly WO '279 teaches double doctors on suction rolls are known (see page 2 lines 7-10).

Applicants' arguments filed February 3, 2003 have been fully considered but are not persuasive.

Applicants have extensively amended the claims in such a manner that they raise the issue of new matter - see rejection above. Furthermore, there is no explicit antecedent basis in the specification for the new language.

In applicants' remarks on page 3 they represent that Boucher teaches that the doctor blades are at angles of 30 and 45° to the tangent. This does not appear to be correct. Boucher teaches that the doctor blades are at 30 and 45° to the perpendicular line 44 through the roll that they are working on. This results in the 15° angle in between the two doctor blades. This teaching does not appear to have anything to do with the angle that the

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doctor blades are disposed relative to a tangent of the suction roll at the point of contact as set out in the claim.

Therefore applicants' arguments that it is well known that the blade angle of the doctor blade is from 25 to 55° are not persuasive as applicants are comparing apples to oranges in their analysis of Boucher's angles. Thus it is not apparent that there is any common knowledge that a doctor blade such as shown in 13 of applicants' Figure 1 would be at a contact angle to the tangent of the roll greater than the angle of the doctor foil 12.

Applicants remarks that Turtinen et al. and WO '279 have spraying devices for better cleaning of contaminants and thus one would never apply these and they cannot be combined with the other references applied are not persuasive. First of all, Turtinen et al. and WO '279 are merely cited *if even necessary* to exemplify double doctors are known.

Applicants' arguments that their publishing that their double doctor device results in 36% better water removal than a conventional twin doctor system are not persuasive. First of all, This is not comparing the invention to the closest prior art. The closest prior art is Kivimaa et al. which explicitly teaches that a foil doctor results in efficient water removal from a suction roll for water remaining in the perforations in the suction roll.

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Furthermore, one of ordinary skill in the art would have expected that using the particularly advantageous doctor foil of Kivimaa et al. as the first blade in a double doctor on a suction roll would have resulted in increased water removal versus a conventional doctor blade, since Kivimaa teaches that the foil blade design is efficient and effective for this specific use.

The rejection can also be viewed that it would have been prima facie obvious to mount a (regular) doctor blade after the foil doctor blade of Kivimaa et al. in order to take advantage of the well known prior art constructions of having two doctor blades mounted on a structure in order to enhance water removal. That is, to use two different blades instead of one blade in Kivimaa would have been prima facie obvious in order to gain the well known advantages of each doctor blade in an additive fashion, since double doctor blades are so well known.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hastings whose telephone number is (703) 308-0470. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can

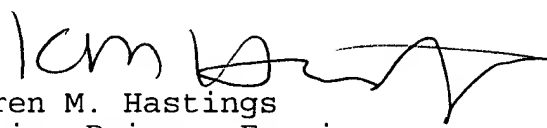
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be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0651.


Karen M. Hastings
Senior Primary Examiner
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KMH/cdc
March 6, 2003

3/2003